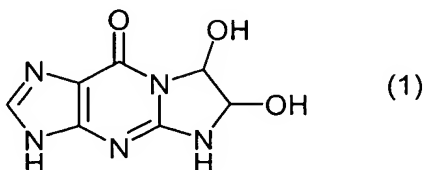


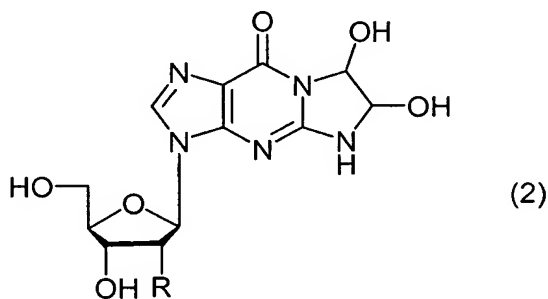
WHAT IS CLAIMED IS:

1. A method of preparing a guanosine-group compound, which comprises the steps of:

reacting glyoxal-guanine represented by formula (1):



with any one selected from the group consisting of uridine, 2'-deoxyuridine and thymidine, together with phosphate ion, in the presence of purine nucleoside phosphorylase and pyrimidine nucleoside phosphorylase, thereby obtaining a compound represented by formula (2):



wherein R represents a hydrogen atom or a hydroxyl group; and

decomposing, by alkali, the compound represented by formula (2), thereby obtaining guanosine or 2'-deoxyguanosine.

2. The method of preparing a guanosine-group compound according to claim 1, wherein, as purine nucleoside phosphorylase and pyrimidine nucleoside phosphorylase, a microorganism itself which contains said enzymes or said enzymes derived from the microorganism are used.

3. The method of preparing a guanosine-group compound according to claim 2, wherein the microorganism belongs to *Bacillus* genus, *Escherichia* genus or *Klebsiella* genus.

4. The method of preparing a guanosine-group compound according to claim 2, wherein the microorganism is *Bacillus stearothermophilus* JTS 859 (FERM BP-6885),

Escherichia coli IFO 3301, *Escherichia coli* IFO 13168, or *Klebsiella pneumoniae* IFO 3321.

5. The method of preparing a guanosine-group compound according to claim 3, wherein the microorganism is *Bacillus stearothermophilus* JTS 859 (FERM BP-6885),
5 *Escherichia coli* IFO 3301, *Escherichia coli* IFO 13168, or *Klebsiella pneumoniae* IFO 3321.

6. The method of preparing a guanosine-group compound according to claim 1, wherein at least one compound selected from the group consisting of glycine, iminodiacetic acid, nitrilotriacetic acid, ethylenediaminetetraacetic acid, ethylene glycol bis (β -aminoethyl
10 ether)-N,N,N',N'-tetraacetic acid and salts thereof is added, or the above at least one compound is added in combination with boric acid or a salt thereof.

7. The method of preparing a guanosine-group compound according to claim 2, wherein at least one compound selected from the group consisting of glycine, iminodiacetic acid, nitrilotriacetic acid, ethylenediaminetetraacetic acid, ethylene glycol bis (β -aminoethyl
15 ether) -N,N,N', N'-tetraacetic acid and salts thereof is added, or the above, at least one compound is added in combination with boric acid or a salt thereof.

8. The method of preparing a guanosine-group compound according to claim 3, wherein at least one compound selected from the group consisting of glycine, iminodiacetic acid, nitrilotriacetic acid, ethylenediaminetetraacetic acid, ethylene glycol bis (β -aminoethyl
20 ether)-N,N,N',N'-tetraacetic acid and salts thereof is added, or the above at least one compound is added in combination with boric acid or a salt thereof.

9. The method of preparing a guanosine-group compound according to claim 4, wherein at least one compound selected from the group consisting of glycine, iminodiacetic acid, nitrilotriacetic acid, ethylenediaminetetraacetic acid, ethylene glycol bis(β -aminoethyl
25 ether)-N,N,N',N'-tetraacetic acid and salts thereof is added, or the above at least one compound is added in combination with boric acid or a salt thereof.

10. The method of preparing a guanosine-group compound according to claim 5, wherein at least one compound selected from the group consisting of glycine, iminodiacetic acid, nitrilotriacetic acid, ethylenediaminetetraacetic acid, ethylene glycol bis(β -aminoethyl
30 ether) -NN,N,N',N'-tetraacetic acid and salts thereof is added, or the above at least one compound is added in combination with boric acid or a salt thereof.